

One Cambridge Place, 50 Hampshire Street Cambridge, Massachusetts 02139 tel: 617 452-6000 fax: 617 452-8000

January 13, 2003

Assistant Attorney General I. Andrew Goldberg Environmental Protection Division 200 Portland Street Boston, Massachusetts 02114

Subject:

Brockton, Massachusetts

Wastewater Collection/Treatment Facility Consent Decree Civil Action No.88-3194

2002 - 4th Quarter Report

Dear Mr. Goldberg:

On behalf of the City of Brockton, we submit a quarterly report for your consideration regarding the City's Consent Decree Civil Action with the Commonwealth. This information is an update of the individual ongoing wastewater projects within the City.

Miscellaneous Sewer Pipe Repair and Replacement

The City has been performing minor sewer rehabilitation based upon the findings of the City Wide Sewer System Evaluation Survey (SSES). As a result of this work, several gallons of extraneous flow have been removed from the sewer system. During the 4th quarter of 2002, the City staff removed approximately 106,120gpd of extraneous flow from the collection system. The attached Table 1 is a summary of sewer system repairs documented by the Brockton Sewer Department. Only the photographs from the 4th quarter 2002 have been provided.

2. Phase I Sewer System Rehabilitation

Based on the recommendations of the City Wide Sewer System Evaluation Survey, several phases of rehabilitation construction are required to reduce quantities of I/I. Phase I is a \$2,000,000 effort to replace sewer pipe and repair manholes. Local funding is being provided for the entire project since the city didn't receive consideration for State Revolving Loan Funds. Construction of



Mr. Goldberg January 13, 2003 Page 2

this work is in winter shut down but will be completed in the summer of 2003. This project is expected to eliminate significant sources of I/I.

#### 3. Phase II Sewer System Rehabilitation

As part of FY03 budgeting, the City included another \$2,000,000 for the Phase II Sewer System Rehabilitation project. The design of this work is expected to proceed within the next couple weeks. This project is expected to eliminate significant sources of I/I.

#### 4. Inflow Removal Program

The City has begun an aggressive private and public inflow removal program. This work includes the removal of sump pumps, roof leaders and other sources of extraneous flow that were identified during previous studies. The Department of Public Works is assisting property owners and other municipal departments with the procedures and solutions for removal of these illegal connections. Table 2 summarizes the inflow removed as part of this program. Since the inception of this program, approximately 2.2mgd of inflow has been removed from the collection system.

#### 5. Pursuit of SRF Funds

DEP has listed Brockton eligible for funding as part of the SRF program. The FY03 draft Intended Use Plan identifies that \$15 million of the total \$59.7 million has been committed for treatment and sewer system improvements in Brockton. A portion of the \$15 million will be used to perform the Phase III Sewer System Rehabilitation project.

#### 6. I/I Reduction by Whitman and Abington

Brockton continuous to negotiate with the Towns of Abington and Whitman regarding the reduction of extraneous flows tributary from their sewer systems. A summary of work performed will be provided when completed by these towns.



Mr. Goldberg January 13, 2003 Page 3

We trust this information meets your expectations regarding the required progress report. Please feel free to contact me regarding any questions or comments on this information.

Very truly yours,

Gregory A. Roy, P.E.

Principal

Camp Dresser & McKee Inc.

cc: Thomas Plouffe, City Solicitor

J. Condon, Chief Financial Officer

Robert D. Smith, DPW Commissioner

Eric Hall, EPA

David DiLorenzo, Joseph Shepherd, MADEP, SER

Robert Cady, MADEP, Boston

Hugh Spurway, USF

Patrick D. Hughes, CDM

Annual Quarter	Dates Work Performed	Description of Work	Estimated Quantity of I/I Removed	Total I/I per quarter	Exfiltration Source
4th Qtr 02	October 3, 2002	Disconnected private catch basins from city sewer at bank at 40 Legion Parkway see Photo 93A & 93B	107,000 gpd	107,000 gpd	
Quarter 2002	August 20, 2002 July 30, 2002 July 29, 2002 July 27, 2002	Removed catch basin grate on sewer manhole at end of Thatcher Crt. (MH 058-022)  Ash St., replaced pipe and service from STA 1+22 to 1+56 (017-039 to 017-038) see Photo 92B  S. Fuller St., replaced pipe from STA 0+27 to 0+33 (018-016B to 018-016A) see Photo 90A & 90B  Dover St., replaced service waye at STA 2+24 (018-017 to 018-016A) see Photo 87A & 87B	100,000 gpd 4,320 gpd SPL 360 gpd	201,000 Spd	
3rd Qua	July 25, 2002 July 24, 2002 July 23, 2002	Dover St., replaced service wye at STA 2+40 (018-017 to 018-016A) see Photo 88A  Forest Rd., replaced pipe from STA 0+17 to 0+23 (018-021A to 018-020A) see Photo 91A & 91B  Dover St., removed service wye at STA 2+18 (018-018B to 018-019C) see Photo 89A & 89B	1,440 gpd SPL SPL	106,120 gpd	_
2nd Quarter 2002	May 28, 2002 May 21, 2002 May 20, 2002 May 17, 2002	Spring St., replaced pipe from STA 1+73 to 1+75 (017-038 to 017-037) see Photo 78A & 78B Spring St., replaced service wye at STA 1+82 (017-037 to 017-036) see Photo 76A & 76B Poplar Rd., replaced service wye at STA 0+60 (017-054 to 017-053) see Photo 77A & 77B Poplar Rd., replaced service wye at STA 0+84 (017-055 to 017-054) see Photo 75A & 75B	SPL 4,320 gpd 2,880 gpd 720 gpd		
	May 13, 2002 May 9, 2002 May 8, 2002 May 8, 2002	Poplar Rd., replaced service wye at STA 1+22 (017-055 to 017-054) see Photo 85A & 85B  Augusta Ave., replaced pipe from STA 1+08 to 1+12 (017-115 to 017-113) see Photo 84A & 84B  Prospect Ave., replaced pipe from STA 0+23 to 0+27 (017-114 to 017-113) see Photo 83A & 83B  Hancock Av., replaced pipe from STA 0+47 to 0+49 (009-086 to 009-085A) see Photo 74A & 74B	1,440 gpd SPL 4,320 gpd 720 gpd		
2nd	May 7, 2002 May 7, 2002 May 6, 2002 May 2, 2002 May 1, 2002	Earle St., replaced pipe from STA 2+20 to 2+25 (017-013A to 017-011A) see Photo 82A & 82B Earle St., replaced pipe from STA 0+50 to 0+52 (017-013A to 017-011A) see Photo 79A & 79B Elm St., replace pipe from STA 0+02 to 0+06 (011-011A to 011-011) see Photo 86A & 86B Sunset Dr., replaced pipe from STA 0+00 to 0+05 (011-016 to 011-015) see Photo 81A & 81B Sunset Dr., replaced pipe from STA 2+72 to 2+77 (011-017 to 011-016) see Photo 80A & 80B	SPL SPL 720 gpd 2,880 gpd	10.500	
1st Quarter 2002	March 28, 2002 March 21, 2002 March 11, 2002 March 6, 2002 March 5, 2002 March 4, 2002 February 28, 2002	Hancock Ave., removed service stub at STA 1+45 (009-087 to 009-086) see Photo 73A & 73B  Hancock Ave., replaced service way at STA 1+06 (009-087 to 009-086) see Photo 72A & 72B  Sunset Dr., replaced pipe from STA 1+45 to 1+52 (009-028 to 009-027) see Photo 71A & 71B  Margery Rd., replaced pipe from STA 1+11 to 1+16 (009-024 to 009-025A) see Photo 65A & 65B  Candy Ln., replaced pipe from STA 1+64 to 1+68 (009-021 to 009-020) see Photo 62A & 62B  Candy Ln., replaced pipe from STA 0+26 to 0+51 (009-020 to 009-019) see Photo 67A & 67B  Candy Ln., removed stub at STA 1+96 (009-021 to 009-020) see Photo 61A & 61B	720 gpd 200 gpd 1,440 gpd 2,880 gpd 1,440 gpd 100 gpd 1,440 gpd SPL	18,720 gpd	
1st Qua	February 26, 2002 February 25, 2002 February 21, 2002 February 20, 2002 February 20, 2002 January 10, 2002	Candy Ln., replaced pipe from STA 1+58 to STA 1+64 (009-020 to 009-019) see Photo 63A & 63B  N. Pearl St., replaced pipe from STA 0+15 to STA 0+25 (009-78A to 009-79) see Photo 70A & 70B  Candy Ln., replaced pipe from STA 0+0 to STA 0+28 (009-021B to 009-021) see Photo 68A & 68B  Candy Ln., replaced pipe from STA 2+63 to STA 2+68 (009-021 to 009-020) see Photo 69A & 69B  Candy Ln., replaced pipe from STA 1+09 to STA 1+15 (009-021A to 009-021B) see Photo 64A & 64B  E. Westgate Dr., replaced pipe from STA 0+48 to STA 0+52 (007-127I to 007-127G) see Photo 66A & 66B	1,000 gpd 600 gpd 200 gpd 360 gpd 100 gpd	11,000 gpd	

Annual Quarter	Dates Work Performed	Description of Work	Estimated Quantity of I/I Removed	Total I/I per quarter	Exfiltration Source
-	November 24, 2001	203 Prospect St., replaced broken service pipe at STA 0+10 (006-094 to 006-096)	SPL	por quartor	Jource
	November 19, 2001	Candy Lane, replaced pipe from STA 0+10 to 0+14 (009-041 to 009-040)	1,440 gpd		
2001	November 15, 2001	Candy Ln., replaced pipe from STA 2+31 to 2+37 (009-043 to 009-043A) see Photo 59A & 59B	SPL		
er	November 14, 2001	Margery Rd., replaced pipe from STA 2+40 to 2+47 (009-042 to 009-041) see Photo 60A & 60B	SPL		
Quarter	November 13, 2001	Santee Road, replace pipe from STA 2+12 to 2+14 (009-058 to 009-056) see Photo 58A & 58B	SPL		
Su:	November 13, 2001	Santee Road, replace pipe from STA 0+77 to 0+80 (009-058 to 009-056) see Photo 57A & 57B	SPL		
4th (	November 13, 2001	Santee Road, replace pipe from STA 0+50 to 0+53 (009-058 to 009-056) see Photo 56A & 56B	SPL		
4	October 17, 2001	191 Grove St., replaced broken pipe from approx. STA 0+40 to 0+46 (056+011 to 056+010)	SPL		
	October 9, 2001	West Street, replaced service wye at STA 0+30 (014-080 to 014-079) see Photo 55A	SPL	1,440 gpd	
10	September 9, 2001	Fitzpatrick Cir, replaced pipe from STA 0+16 to 0+18 (005-104A to 005-104) see Photo 54B	SPL	7 8	
200	August 20, 2001	Fitzpatrick Cir, replaced service wye at STA 1+32 (005-100 to 005-102) see Photo 52A & 52B	720		
er	August 16, 2001	Fitzpatrick Cir, replaced service wye at STA 0+15 (005-098 to 005-099A) see Photo 48A & 48B	720		
art	August 14, 2001	Fitzpatrick Cir, replaced service wye at STA 0+43 (005-104 to 005-102A) see Photo 53A & 53B	1,440		
Quarter 2001	August 13, 2001	Fitzpatrick Cir, replaced wye & main from STA 1+12 to 1+20 (005-104A to 005-104) see Photo 49A & 49B	8,640		
3rd (	August 7, 2001	Sophia Ave., replaced pipe from STA 2+68 to 2+70 (005-104 to 005-136) see Photo 50A & 50B	SPL		
31	August 3, 2001	Fitzpatrick Cir, replaced pipe from STA 2+38 to 2+46 (005-100 to 005-102) see Photo 51A & 51B	SPL	11,520 gpd	
	June 12, 2001	Oak Ridge Dr., replaced pipe from STA 1+40 to 1+55 (004-084 to 004-080) see Photo 47A & 47B	4,680 gpd	, 81	
	May 22, 2001	Crickett Rd., replaced pipe from STA 0+49 to 0+53 (004-057A to 004-053) see Photo 44A & 44B	7,200 gpd		
	May 21, 2001	Crickett Rd., replaced pipe from STA 1+82 to 1+86 (004-057A to 004-053) see Photo 45A & 45B	SPL		
	May 15, 2001	Shaws Parking Lot, removed entire 24" pipe (028-038 to 028-039)	SPL		
-	May 15, 2001	Shaws Parking Lot, replaced entire 8" pipe (028-039 to 038-039A)	SPL		
003	May 10, 2001	VFW off N. Quincy, repaired service pipe and wye see Photo 46A & 46B	100,000 gpd		
ir 2	May 5, 2001	57 Wilder St., house service connected directly to drain pipe was removed see Photo 43			X
ırte	April 25, 2001	Berglund Ave., replaced pipe from STA 2+10 to 2+13 (004-021 to 004-020) see Photo 37A & 37B	SPL		
n	April 24, 2001	Berglund Ave., replaced pipe from STA 1+84 to 1+92 (004-021 to 004-020) see Photo 34A & 34B	SPL		
0	April 23, 2001	Berglund Ave., replaced service wye at STA 2+35 (004-021 to 004-020) see Photo 36A & 36B	dripping		
2nd Quarter 2001	April 20, 2001	Benham St., replaced pipe from STA to ( ) see Photo 38A & 38B	???		
	April 19, 2001	Miller Ave., Replaced pipe from STA to ( ) see Photo 39A & 39B	???		
	April 12, 2001	Berglund Ave., replaced pipe from STA 1+71 to 1+74 (004-021 to 004-020) see Photo 35A & 35B	SPL		
	April 10, 2001	Thompson Ave., replaced pipe from STA 1+03 to 1+07 (004-017 to 004-016) see Photo 41A & 41B	SPL		
	April 9, 2001	Thompson Ave., replaced 6 " pipe from STA 0+38 to 0+44 (004-017 to 004-016) see Photo 42A & 42B	SPL		
tante de l'est d'a-	April 2, 2001	Reservoir Road, replaced service at wye at STA 0+74 (002-104 to 002-103) see Photo 40A & 40B	1,440 gpd	108,640 gpd	

Annual	Dates		Estimated Quantity	Total I/I	Exfiltration
Quarter	Work Performed	Description of Work	of I/I Removed	per quarter	Source
	March 27, 2001	Belmont and Ash St., replaced 8" pipe from STA 0+10 to 0+15 (018-072 to 018-073) see Photo 31A & 31B	SPL		
	March 19, 2001	Coventry Cir., replaced pipe from STA 0+91 to 0+97 (004-039A to 004-039) see Photo 34A & 34B	SPL		
	March 16, 2001	Coventry Cir., replaced pipe from STA 1+49 to 1+54 (004-039B to 004-039A) see Photo 32A & 32B	SPL		
	March 1, 2001	Coventry Cir., replaced pipe from STA 0+37 to 0+42 (004-039A to 004-039) see Photo 33A & 33B	14,400 gpd		
Quarter 2001	February 27, 2001	Coventry Cir., replaced pipe from STA 0+70 to 0+76 (004-039B to 004-039A) see Photo 30A & 30B	SPL		
2	February 26, 2001	Coventry Cir., replaced service connection at STA 0+12 (004-039B to 004-039A) see Photo 26A & 26B	5,760 gpd		
te	February 20, 2001	Colonel Bell Dr., replaced pipe from STA 2+41 to 2+44 (004-007 to 004-006) see Photo 29A & 29B	2,880 gpd		
Ian	February 12, 2001	Coventry Cir., replaced service connection at STA 1+44 (004-039A to 004-039) see Photo 27A & 27B	4,320 gpd		
Ö	February 9, 2001	Coventry Cir., replaced pipe from STA 1+79 to 1+82 (004-039A to 004-039)) see Photo 28A & 28B	4,320 gpd		
lst	January 30, 2001	Colonel Bell Dr., replaced service connection at STA 1+16 (004-036 to 004-024) see Photo 22A & 22B	4,320 gpd		
	January 29, 2001	Colonel Bell Dr., removed service wye at STA 1+04 (004-025 to 004-026) see Photo 21A & 21B	SPL		
	January 31, 2001	Colonel Bell Dr., removed service wye at STA 0+33 (004-008 to 004-007) see Photo 23A & 23B	SPL		
	January 23, 2001	Colonel Bell Dr., replaced pipe from STA 1+34 to 1+37 (004-025 to 004-026) see Photo 25A & 25B	SPL		
	January 9, 2001	Colonel Bell Dr., replaced pipe from STA 0+62 to 0+64 (004-004 to 004-003) see Photo 24A & 24B	2,160 gpd	38,160 gpd	
	Nov. 30, 20000	West Haven Dr., replaced service connection at STA 0+44 (001-029 to 001-028) see Photo 12A & 12B	720 gpd		
0	Nov. 28, 20000	West Haven Dr., replaced 7' of 8 "pipe, STA 1+85 to 1+92 (001-029 to 001-028) see Photo 20A & 20B	47 gpd *		
00	Nov. 16, 20000	Elliot St., replaced 8' of broken pipe at house #184 (042-121 to 042-122) see Photo15A & 15B	2,880 gpd		
r 2	Nov. 14, 20000	Darren Dr., replaced pipe at leaking joint at STA 0+52 (001-028 to 001-026) see Photo 19A & 19B	SPL		
4th Quarter 2000	October 26, 2000	Darren Dr., replaced pipe at leaking joint at STA 0+89 (001-028 to 001-026) see Photo 17A & 17B	SPL		
na	October 23, 2000	Darren Dr., replaced 3 ' of cracked pipe STA 1+65 (001-028 to 001-026) see Photo 18A & 18B	SPL		
0	October 17, 2000	Darren Dr., replaced 2' of broken pipe at STA 0+08 (001-028 to 001-026) see Photo 16A & 16B	SPL		
4th	October 5, 2000	Perkins Ave., replaced wye at STA 2+96 (063-009B to 063-005) see Photo 13A & 13B	SPL		
	October 3, 2000	Perkins Ave., plugged service wye at STA 3+30 (063-009B to 063-005) see Photo 14A & 14B	SPL		
	Sept. 15, 2000	Fitzpatrick Circle replaced 7' of 8" VCP	SPL	3,647 gpd	
	August 21, 2000	Vine St., replaced broken pipe and service STA 0+99 to 1+01 (037-093 TO 037-092) see Photo 8A & 8B	SPL		
	August 17, 2000	12 Orchard Ave., removed service connection at STA 0+79 (037-128 to 037-127) see Photo 9A & 9B	180 gpd		
	August 18, 2000	14 Orchard Ave., replaced service connection at STA 2+28 (037-128 to 037-127) see Photo 10A & 10B	SPL		
00	July 29, 2000	Van Cliff Ave., replaced service at STA 0+31 (032-059 to 032-052)	SPL		
20	July 27, 2000	Paulin Ave., replaced service at STA 0+93 (065-070 to 065-069) see Photo 11A & 11B	720 gpd		
ter	July 26, 2000	Burril St., replaced service & broken pipe from STA 2+18 to STA 2+19 (048-051 to 048-050)	2,160 gpd		
ar	July 19, 2000	Roan Crt., replaced service connections at STA 0+27 & 0+29 (019-041 to 019-040) see Photo 1a & 1b	SPL		
3rd Quarter 2000	July 19, 2000	Roan Crt., replaced service connection at STA 0+61 (019-041 to 019-040) see Photo 2a & 2b	SPL		
rd	July 18, 2000	Albany St., replaced leaking joints at STA 2+85 (001-019 to 001-018) see Photo 3a & 3b	2,880 gpd		
3	July 13, 2000	Stubb Rd., replaced service connection at STA 0+39 (009-026 to 009-024) see Photo 5a & 5b	360 gpd		
	July 13, 2000	Stubb Rd., replaced service connection at STA 1+03 (009-026 to 009-024) see Photo 6a & 6b	360 gpd		
	July 12, 2000	Stubb Rd., replaced broken pipe from STA 0+18 to 0+20 (009-026 to 009-024) see Photo 7a & 7b	2,880 gpd		
	July 11, 2000	Windsor Cir., Replaced a service tap at STA 0+05 (031-092 to 031-091) see Photo 4A & 4B	28,800 gpd	38,340 gpd	

Annual	Dates		Estimated Quantity	Total I/I	Exfiltration
Quarter	Work Performed	Description of Work	of I/I Removed	per quarter	Source
2nd Quarter 2000	May 2000	Winnifred Road, service replacement at STA 1+32 (015-025 to 015-024)	360 gpd		
2nd 2000	May 2000	Fitzpatrick Avenue, replaced 300' of 8-in VC pipe that was defective (005-145A to MH 005-143)	2,010 gpd *		
2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	April 13, 2000	Main Interceptor infiltration leak at Meadow Lane bridge crossing	45,000 gpd		
	?	Embassy Nursing Home had direct sewer connection to surface water		47,370 gpd	X
1st Quarter 2000					
1st uarte 2000					
Ou 2					
	December 1999	Howard Street Sewer Replacement, 4,460 ft	20.002 1.*	0 gpd	
e ter			29,882 gpd *		
4th Quarter 1999	?	Snell Place Sewer Replacement of 15 ft	101 gpd *		
Ou T				20 002 1	
	July 1999	Country Club Lane Sewer Replacement of 400 ft	2,680 gpd *	29,983 gpd	
ter 9	July 1999	Country Club Place Sewer Replacement of 400 ft	2,680 gpd *		
3rd Quarter 1999	July 1999	Country Club Flace Sewer Replacement of 400 ft	2,000 gpd 4		
2 -		•		5,360 gpd	
<u></u>	April 5, 1999	Bellaire St. MH 004-016 to 004-015 replaced 10' of 10" pipe between STA 1+83 & 1+89	67 gpd *	3,300 дри	
d of	ALIGN TOPS	- Regiment 13th 6 Mes intersection at Copyright of Art 13" 57	o. Sp.		
2nd Quarter 1999					
0				67 gpd	
<b>L</b>	March 29, 1999	Bellaire St. MH 004-016 to 004-015 replaced 6' of 10"pipe & 1 service between STA 1+37 & 1+41	40 gpd *		
1st uarte 1999	March 22, 1999	Bellaire St. MH 017-010B to 017-010A replace 6' of 10" pipe starting @ STA 0+28	40 gpd *		
1st Quarter 1999					
0				80 gpd	1
i	September 1998	Warren & Keith, 60 ft west (Holmgren project)	402 gpd *		
4th Quarter 1998	September 1998	Warren & W. Chestnut, 74 ft west (Holmgren project)	496 gpd *		
4 9us 19	September 1998	Warren & Calmar, 74 ft east (Holmgren project)	496 gpd *		
0	September 1998	Warren & Market to Copeland, 1,135 ft (Holmgren project)	7,605 gpd *	8,999 gpd	
er	1998	Ellsworth (cured in place lining) 522 linear feet (017-125 to 017-118)	3,497 gpd *		
nd art	January 1998	Disconnected CB connection to sewer at Stonehill College (at Duffy Academic Center)	41,200 gpd *		
1st, 2nd, 3rd Quarter 1998					
1st d o					
31				44,697 gpd	
er	December 1997	Warren & Clifton, north to Nilsson, 3,000 ft	20,100 gpd *		
4th uarte 1997					
4th Quarter 1997				00.100	
				20,100 gpd	

#### History of Sewer System Repair and Rehabilitation

Annual	Dates		Estimated Quantity Total I/I	Exfiltration
Quarter	Work Performed	Description of Work	of I/I Removed per quarter	
	April 1995	Sump pump removed at 117 Bellevue Ave.	8,640 gpd **	
	April 1995	Sump pump removed at 59 Bonney St.	8,640 gpd **	
	April 1995	Sump pump removed at 25 Granite St.	8,640 gpd **	
	April 1995	Sump pump removed at 114 Hovendon Ave.	8,640 gpd **	
	April 1995	Sump pump removed at 121 Hovendon Ave.	8,640 gpd **	
	April 1995	Sump pump removed at 243 Howard St.	8,640 gpd **	
	April 1995	Sump pump removed at 267 Howard St.	8,640 gpd **	
	April 1995	Sump pump removed at 15 Intervale St.	8,640 gpd **	
	April 11, 1995	240 Colonel Bell Drive replaced 6 ft with 8" PVC	40 gpd *	
	January 1, 1995	Sheridan St. replaced 10 ft with 10" PVC	67 gpd *	
	September 7, 1994	Braemoor Rd. replaced 8 ft with 8" PVC	54 gpd *	
	August 24, 1994	39 Southworth St. replaced 10 ft with 8" PVC	67 gpd *	
	August 1994	Fisk St. Sewer Replacement of 50 ft with 8" PVC	335 gpd *	
	June 6, 1994	Market St. replaced 200 ft with 10" PVC	1,340 gpd *	
	June 1994	I/I Rehabilitation Conducted by Atlantic Development Corporation		
		- Disconnected driveway drain from sewer at 28 Amark St.	4,320 gpd ***	
		- Disconnected driveway drain from sewer at 306 Field St.	4,320 gpd ***	
	Dec. 15, 1993	16 Hill St. replaced 8 ft with 8 PVC	54 gpd *	
	April 13, 1990	249 Boylston St. replaced 8 ft with 8" PVC	0 gpd *	
	May 1, 1990	Pleasant St. at Belair St. replaced 18 ft with 10" PVC	121 gpd *	

Estimated Total I/I Removed: 2,563,231 gpd

SPL: signs of previous leakage

<sup>\*</sup> I/I estimate based on average I/I rate of 6.7 gpd/ft.

<sup>\*\*</sup> I/I estimate based on pump rate of 6 gpm.

<sup>\*\*\*</sup> I/I estimate based on pump rate of 3 gpm.

### Photographs of Rehabilitation Conducted by Brockton Sewer Department

Before
Photo 93A - Legion Parkway



Drain connection to sewer pipe

After
Photo 93B - Legion Parkway

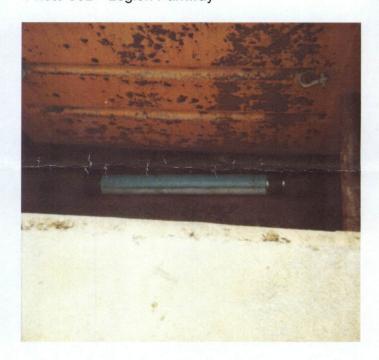


Table 2

## Brockton Inflow Removal Program Summary of Inspections, Repairs, and Potential Inflow Removal to Date 12/16/2002

PRIVATE PROPERTIES				
Properties Inspected	164			
Properties with no illegal connections	40			
Properties with corrective work pending	16			
Properties with non-inflow related repairs complete	2			
Properties with inflow related repairs complete	106			
Potential gallons of daily inflow removed (gpd) 2,173,500				
NOTE - Property inspections are continuing. Additional inflow reduction is anticipated.				

PUBLIC PROPERTIES	
Properties Inspected	28
Properties with no illegal connections	21
Properties requiring corrective work	4 (Schools, Fire Sta No.1)
Properties requiring non-inflow related repairs (gas traps, etc.)	2 (Fire Stations)
Properties requiring additional investigation	1 (City Hall Roof Drains)
Potential gallons of daily inflow removed (gpd)	0 (No work performed to date)
NOTE - New schools were not inspected. Fire departments require gas t	raps for floor drains. Significant inflow

reduction is anticipated at properties requiring corrective work. Additional inspections are planned.